

**For Reference**

---

**NOT TO BE TAKEN FROM THIS ROOM**

Ex libris  
UNIVERSITATIS  
ALBERTAENSIS











T H E U N I V E R S I T Y O F A L B E R T A

RELEASE FORM

NAME OF AUTHOR        SIGRID ANNE HUNDLEBY  
TITLE OF THESIS       THREE SELF-INSTRUCTIONAL VIDEOTAPE COMMUNICATION  
                         SKILL PROGRAMS  
DEGREE FOR WHICH THESIS WAS PRESENTED    DOCTOR OF PHILOSOPHY  
YEAR THIS DEGREE GRANTED    1977

Permission is hereby granted to THE UNIVERSITY OF ALBERTA  
LIBRARY to reproduce single copies of this thesis and to lend  
or sell such copies for private, scholarly or scientific research  
purposes only.

The author reserves other publication rights, and neither  
the thesis nor extensive extracts from it may be printed or  
otherwise reproduced without the author's written permission.

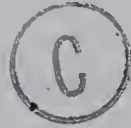




THE UNIVERSITY OF ALBERTA

THREE SELF-INSTRUCTIONAL VIDEOTAPE  
COMMUNICATION SKILL PROGRAMS

by



SIGRID ANNE HUNDLEBY

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF DOCTOR OF PHILOSOPHY

IN

COUNSELLING AND SCHOOL PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1977



THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Three Self-Instructional Videotape Communication Skill Programs submitted by SIGRID ANNE HUNDLEBY in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Counseling and School Psychology.



## ABSTRACT

The central focus of this study involved the development of three self-instructional videotape programs. These programs taught the communication skills of (a) paraphrasing, (b) reflecting feelings, and (c) asking open-ended questions.

An initial research project showed that both audiotape and audiovideo tape were effective media to teach a program on paraphrasing. The initial program combined a description of the skill to be taught with modeled illustrations of the skill along with student practice sections. There was no difference in the group who heard the program on audiotape and the group who saw the program on audiovideo tape in their ability to write a paraphrase response or use paraphrasing in a conversation with a coached student. Since this format had been found to be effective in teaching paraphrasing, three self-instructional programs were developed using videotapes. The programs developed were (a) paraphrasing, (b) reflecting feelings, and (c) asking open-ended questions.

The self-instructional programs were made on colour videotape in the university television studio. A professionally trained commentator did the didactic instructions. A female teacher responded to grade six students' statements using the appropriate program skill. Each program consisted of (a) a description of the skill, (b) a three minute interaction between the teacher and a student to illustrate the skill, (c) 10 one statement interactions between the teacher and a student, 10 one statement interactions between the teacher and a student with a 20 second pause for the subject to respond before the



teacher's response was heard, and (d) 10 student statements where the subject responded and no teacher response was heard.

Subjects were randomly assigned to one of three treatment programs or to a control group. The treatment groups (paraphrase, reflection of feelings and open-ended question) each watched the program skill that they were assigned to, filled in a response sheet which consisted of five "student-like" statements and held a five-minute audiotaped conversation with a coached student. The control group filled in the response sheet and held a five-minute audiotaped conversation with a coached student. One week later both the written response form and the five-minute conversation were repeated for both experimental and control subjects.

Judges rated the written responses of all subjects on all three skills. Behavior counts of the number of times each skill was used were made for each subject on the audiotaped conversations with a coached student.

Results showed that the subjects who viewed the self-instructional videotape programs did learn the skills and that they were able to use the skill both in writing a response and when engaging in a conversation. Delayed posttest results showed that all three groups maintained both the ability to write a response and the ability to use their skill in a conversation after a one week lapse in time.

Thus, it appears that individual communication skills can be taught by a self-instructional videotape program and that these skills are learned well enough to be used in making a written response and well enough to transfer to a live conversation with a coached student.





## ACKNOWLEDGMENTS

The writer wishes to express her gratitude to the following persons for their help in the development of this dissertation.

To Dr. Peter Calder for his encouragement and suggestions, as well as for his interest in the completion of this dissertation before he left on sabbatical.

To Dr. Harvey Zingle, Dr. Don Sawatzky, and Dr. Ted Maroun for their constructive critical analysis of this document. To Dr. Susan Therrien for her ideas and encouragement.

To the Grade Six students from Brander Gardens Elementary School for their help in making the program skill tapes. To Ken McMillan for his professional announcing on the tapes.

To Brent Fraser, Judith Fris, Marie Laing, Lorraine Seborg, and Quintin Yardley for their help in running the study.

To the Audio-Visual Department for their kind assistance in the development of the program tapes.

To Judy Maynes for her fast and efficient typing.

To some very special people, Beth, James, Barb, Brian, Gerry and Mike for their friendship, love, and encouragement which brightened many days.

To my wonderful parents, Malla and Conrad Vennberg, for believing in me and in my work and for standing beside me through some difficult times.

I dedicate this work to my daughter, Britt Inger, with the wish that my growth will open the doors for her to grow.



# TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION TO THE STUDY . . . . .	1
	Nature of the Problem . . . . .	3
	Purpose of the Study . . . . .	4
	Definition of Terms . . . . .	4
	Paraphrasing . . . . .	4
	Reflecting Feelings . . . . .	4
	Asking Open-Ended Questions . . . . .	5
	Communication Skill . . . . .	5
	Modeled Behavior . . . . .	5
	Implications of the Study . . . . .	5
	Limitations of the Study . . . . .	5
	Overview of the Study . . . . .	6
II	REVIEW OF THE LITERATURE . . . . .	7
	Modeling Studies . . . . .	7
	Communication Skill Training Studies . . . . .	10
	Self-Instructional Media Studies . . . . .	14
	Communication Skills to be Modeled . . . . .	19
	Choice of Modeling Media . . . . .	20
III	METHODOLOGY . . . . .	22
	Preliminary Research Project . . . . .	22
	Subjects . . . . .	22
	Instruments . . . . .	22
	Procedure . . . . .	23



CHAPTER		PAGE
	Nature of the Self-Instructional Program . . . . .	23
	Results . . . . .	24
	Discussion . . . . .	27
	Implications of the Preliminary Research . . . . .	28
	Methodology of Thesis Research . . . . .	29
	Sample . . . . .	29
	Research Design . . . . .	29
	Instruments . . . . .	30
	Data Analysis . . . . .	31
	Nature of the Trained Raters and	
	Coached Students . . . . .	31
	Procedure . . . . .	32
	Nature of the Self-Instructional Programs . . . . .	36
	Research Questions . . . . .	38
IV	RESULTS AND DISCUSSION . . . . .	40
	Reliability of Raters . . . . .	40
	Treatment Effects on the Posttests . . . . .	40
	Summary of the Results of the Posttest . . . . .	45
	Treatment Effects on the Delayed Posttest . . . . .	46
	Summary of the Results of the Delayed Posttest . . . . .	49
	Posttest-Delayed Posttest Comparison . . . . .	50
	Summary of Ratings on All Three Program Skills . . . . .	50
	The Inquiry Questionnaire . . . . .	53
V	SUMMARY AND CONCLUSIONS . . . . .	56
	Overview and Summary of Results . . . . .	56



CHAPTER	PAGE
Implications of the Study . . . . .	59
Suggestions for Further Research . . . . .	60
REFERENCES . . . . .	62
APPENDIX A COMMENTARY ON THE PARAPHRASE VIDEOTAPE . . . . .	67
APPENDIX B COMMENTARY ON THE REFLECTION OF FEELINGS VIDEOTAPE . . . . .	69
APPENDIX C COMMENTARY ON THE OPEN-ENDED QUESTION VIDEOTAPE . . . . .	71
APPENDIX D CHECK MARK SHEET TO ACCOMPANY EACH VIDEOTAPE PROGRAM . . . . .	73
APPENDIX E WRITTEN RESPONSE QUESTIONNAIRE . . . . .	74
APPENDIX F FOLLOW-UP INQUIRY SHEET . . . . .	75
APPENDIX G COACHED STUDENT IMPRESSION SHEET . . . . .	76





# LIST OF TABLES

TABLE		PAGE
I	MEANS AND STANDARD DEVIATIONS ON WRITTEN PARAPHRASE QUESTIONNAIRE . . . . .	24
II	t-TESTS FOR DIFFERENCES ON WRITTEN PARAPHRASE QUESTIONNAIRE . . . . .	25
III	MEANS AND STANDARD DEVIATIONS ON VERBAL INTERACTIONS . . . . .	26
IV	t-TESTS FOR DIFFERENCES ON FREQUENCY OF USING PARAPHRASES IN VERBAL INTERACTIONS . . . . .	26
V	CORRELATION COEFFICIENTS OF RATER SCORES ON POSTTESTS . . . . .	41
VI	CORRELATION COEFFICIENTS OF RATER SCORES ON DELAYED POSTTESTS . . . . .	42
VII	MEANS, STANDARD DEVIATIONS AND t-TESTS ON POSTTEST MEASURES . . . . .	44
VIII	MEANS, STANDARD DEVIATIONS AND t-TESTS ON DELAYED POSTTEST MEASURES . . . . .	47
IX	NUMBER OF SKILL RESPONSES OF EACH GROUP RATED ON ALL THREE SKILLS (POSTTEST) . . . . .	51
X	NUMBER OF SKILL RESPONSES OF EACH GROUP RATED ON ALL THREE SKILLS (DELAYED POSTTEST) . . . . .	52



## LIST OF FIGURES

FIGURE		PAGE
1	RESEARCH PROCEDURE FOR TREATMENT AND CONTROL GROUPS . . . . .	33
2	SUBJECT DISTRIBUTION . . . . .	34
3	MEAN SCORES ON POSTTEST MEASURES FOR SUBJECTS WHO DID AND DID NOT DO THE DELAYED POSTTEST MEASURES . . .	35



## CHAPTER I

### INTRODUCTION TO THE STUDY

Effective communication skills are of value to people other than those enrolled in counselor education programs. Children taught by teachers who were perceived as being facilitative learned more (Lewis, Lovell, & Jessee, 1965). The exact manner in which teachers who are facilitative listeners influence their students is not clear.

In a review of studies on many aspects of teaching, Dunkin and Biddle (1974), were unable to discover a trend in research findings to indicate what qualities in a teacher facilitate a productive classroom climate. "Warmth" and "indirectness" appeared to be important components of such a climate. The teacher qualities which lead to "warmth" included teacher praise and teacher acceptance of pupils' ideas (Dunkin & Biddle, 1974, p. 120). While the specific skills involved in praise and acceptance have not been studied, Carkhuff (1972) points out that functionality in a person's world, whether he is a counselor or counselor trainer, or a teacher or an administrator in education or industry, or even a parent, is dependent upon the interpersonal and specialty program skills which he has available to him. It would, therefore, seem that good interpersonal skills are an important part of any situation where there is interpersonal interaction.

Carkhuff (1972) emphasizes that skills are the function of training. To be able to interact more effectively with people, whether they be children or adults, requires both the knowledge of and ability



to use communication skills. A study by Combs and Soper (1963) showed that both "good" and "bad" teachers knew what a helping relationship was. The responses of both groups correlated highly with what therapists described as a good relationship. They suggest that the difference in effectiveness between teachers labelled as "good" or "bad" by students and supervisory personnel lay not in the knowledge of the concept of a helping relationship but rather in the knowledge of and the ability to use specific helping skills.

Amindon and Flanders (1963, p.3) state that:

The key to developing more effective classroom verbal behavior is the opportunity to experiment with and practice desired communication skills. Among the most important of these skills needed by the teacher are the following:  
 (1) ability to accept, clarify, and use ideas, (2) ability to accept and clarify emotional expression, (3) ability to relate emotional expression to ideas, (4) ability to state objectively a point of view, (5) ability to summarize ideas presented in group discussion, (7) ability to communicate encouragement, (8) ability to question others without causing defensive behavior, and (9) ability to use criticism with least possible harm to the status of the recipient.

In the development of communication skills in the classroom, attention appears to be a central part of the interaction between teacher and student (Ivey, 1971). Unless the teacher listens or attends to the student, little in the way of understanding will occur. Ivey (1971) feels that in order to engage in attending to the students' comments the teacher must listen to the content. To understand the feeling component of a statement, one must attend to the feeling that is being communicated.

While no definitive research has pointed out the qualities which make up a good teacher, it appears that good communication skills would be a valuable asset to any teacher-child relationship.





### Nature of the Problem

It would seem, then, that there is evidence to suggest that communication skills would be an asset to teachers.

The literature related to ways of teaching communication skills (reviewed in detail in Chapter II) reveals that the skills can either be taught as total concepts or as separate, behaviorally defined units. The literature also reveals that the skills can be taught by a number of methods including (a) lecture, (b) discussion, (c) programmed text, (d) self-instructional audio or video tapes, and (e) the language laboratory. Specific communication skills have been effectively taught as discrete, behaviorally defined units by several different combinations of these methods. However, not all of the above methods appear to facilitate transfer of the cognitive knowledge of the skill to the ability to use the skill in a verbal conversation (Heiserman, 1971; Magnus, 1972). It appears that an effective model of the skill being correctly used plus a didactic explanation of the skill, when combined in a program with student practice and student involvement, produce the likliest combination of techniques to both teach the cognitive aspects of the specific skill and to facilitate transfer to a more natural verbal interaction (Ivey, 1971).

As many teachers do not have access to an instructor-led communications program or access to the expensive equipment needed for a micro-counseling workshop (Ivey, 1974), there appears to be a need for a self-instructional program that would allow teachers to become knowledgeable in both the concepts and use of communication skills.



## Purpose of the Study

Given the value of effective communication skills in all types of interpersonal interactions and success of the "micro" concept of teaching these skills individually, a study was formulated to develop and evaluate the effectiveness of three self-instructional individual skill videotape programs to teach the skills of (a) paraphrasing, (b) reflecting feelings, and (c) asking open-ended questions. The effectiveness of these programs was assessed both in terms of ability to write a response showing the skills and in terms of being able to use the skill in a live conversation. Both an immediate posttest and a delayed posttest one week later were administered.

Specifically, the purpose of this study was to develop and assess the effectiveness of three videotape self-instructional programs. Before this study could be undertaken it was necessary to run a preliminary study to determine if an audiotape or videotape should be used to present the model of each skill (see Chapter III).

## Definition of Terms

In the previous section outlining the purpose of the study, several terms were mentioned. The definitions of these terms should facilitate understanding the nature of the study. These definitions follow.

Paraphrasing. Stating in your own words what a person's remark conveys to you. Emphasis is placed on the content of the person's statement.

Reflecting Feelings. Responding to the feeling being expressed by reflecting back to a person your understanding of how they are



feeling. Emphasis is placed on the affective, rather than the cognitive, part of the person's statement.

Asking Open-Ended Questions. Asking a question which encourages the subject to express her real self or allows her to explore herself with the support of the interviewer. An example would be "How did you feel about that?".

Communication Skill. A verbal or nonverbal behavior which is used in effective conversations and which is operational, repeatable, trainable, and measureable.

Modeled Behavior. A conversation between a teacher and a student where the teacher is using the communication skill specific to the program being used.

### Implications of the Study

If the self-instructional communication skill programs do teach the specific skills so that they can be used in verbal conversations, then a basis would be established for testing these programs as helpful aids to actual student-teacher interactions.

Also, if the program skills are retained over time, then it may be useful to develop other communication skill programs using the same basic format.

### Limitations of the Study

1. Only university students in training to be teachers were employed in the study. This makes generalizations to actual teacher populations somewhat difficult.





2. The self-instructional programs were presented on videotapes. Although the preliminary research (Chapter III) found no difference in the effectiveness of the paraphrase program whether it was presented on audio or videotape, it is not possible to say for certain that audiotapes would be as effective for all three programs.

3. It is not possible to generalize the transfer of the skill from the coached student-subject interaction to a real life teacher-student interaction. Other considerations may make the skills used in the coached student-subject interactions not readily useable by a teacher in a classroom setting.

4. Only specific skills were taught. No attempt was made to integrate the skills with one another or into an overall conversation. Therefore, it is not possible to predict whether or not the subjects will be able to effectively integrate the skill they learned into their general manner of conversing.

### Overview of the Study

The description of the study just outlined progresses as follows. Chapter II contains a review of literature related to modeling, communication skills and types of instruction. This is followed by a discussion of the methodology employed in the study, including results of a preliminary research project conducted prior to the central experiment. The thesis concludes with a presentation of the results of the study along with a discussion of the implications of the results, and suggestions for further research.





## CHAPTER II

### REVIEW OF THE LITERATURE

This chapter presents a review of the literature on modeling studies, communication skill training studies, and educational media studies.

#### Modeling Studies

Modeling research has indicated that the observation of a model's behavior and the consequences to the model can result in the acquisition and the subsequent performance of novel responses or in the modification of existing patterns of behavior (Bandura, 1965, 1969; Bandura & Walters, 1963).

A basic issue studied (Dalton, Sundblad, & Hylbert, 1972) was whether a modeled-learning experience was a more effective method of acquiring a counselor response than an operant procedure. Undergraduate university students were divided into three groups and shown a counselor model on video tape using the skill of empathic responses or given material to read about the skill or given no treatment. Results indicated that the students exposed to the modeling tape displayed a significantly higher level of functioning both on a written scale measuring empathic responses and in a real life situation than did those students who either read about the skill or who had no treatment. These differences were maintained when measured one month later. The use of a model appears to have a valid use in teaching skills and behaviors.



The principles of modeling have been used in a variety of ways within an educational and counseling framework. The models used have been on film, video tape, audio tape and live.

Myrick (1969) exposed grade eight students to either a video tape or audio tape model of a client in a counseling setting in order to orient them to the counseling process. He found that exposure to either model increased the number of self reference statements made during counseling as compared with a no model control group.

Whalen (1969) found that exposure to a model (on film) of interpersonal openness, when preceded by descriptive instruction, facilitated the expression of interpersonal openness and inhibited impersonal discussion in the observers. In this study using male college students, Whalen found that neither model nor instruction alone were sufficient to increase self-disclosure.

In a study looking at the effect of a high empathy model, a low empathy model, and no model on the acquisition of the skill of making an empathic response, Perry (1975) found that the subjects exposed to the high empathy model were significantly more empathic when responding to a taped client.

Goldberg (1970) examined the effectiveness of an audiotaped model plus instructions in learning the counseling skill of reflection of feelings. Her study consisted of four groups (a) model plus instruction, (b) model only, (c) instructions only, and (d) placebo. Goldberg found that instructions plus modeling proved most effective, followed by modeling only.

The above studies show that modeling techniques have been used successfully to develop verbal skills. The comparative effects of



different types of models (audio, videotape, live, and sound films) have not been widely investigated.

Di Mattia and Arndt (1974) compared microcounseling which used videotape models with a reflective listening program which used live role-playing models. The two programs were basically the same except for the method of model presentation and skill practise evaluation. While the microcounseling group were videotaped and evaluated by reviewing the tape with a supervisor the reflective listening group discussed what they had done immediately after their practise session and compared the most facilitative and least facilitative responses. No difference was found between the two approaches in teaching reflective listening skills.

Myrick (1969) found that an audio tape model was more effective than a video tape model in orienting students to the verbal behavior of a counseling session. He concluded that perhaps students were more able to attend to the verbal factor when listening to an audio tape than when listening to and viewing a video tape. The video tape might introduce too great a number of stimuli on which to attend.

The use of audio or video tapes to record the interviews of students in counselor training programs has been examined. Poling (1968) found video tapes to be more effective in critiquing the counseling skills of practicum students. Yenowine and Arbuckle (1971) found video tape plus supervision helped the students move faster in their professional growth than did audio tape recording plus supervision. Harbach (1973) found no difference in audio or video tapes in modifying the counselor's perception of the interview. However, the video group believed their program to be of greater value than did the audio group.





From the above studies it appears that the use of modeling is an effective way to teach a verbal communication skill. Whether the equipment necessary to use an audio-video model produces a tape that is significantly more effective than a straight audio tape is not as clear.

Ivey (1971) suggested that an audio tape model may be more effective than an audio-video model in teaching verbal skills as there are fewer distracting stimuli. He felt that an audio-video model was most effective in presenting skills that involved the physical behavior of the student.

#### Communication Skill Training Studies

Material can be presented as global skills or as discrete segments of a total skill. It appears that short, well-defined units of behavior are more easily learned than are total concepts which do not have the composite skills well defined (Allen & Ryan, 1969; Gropper, 1975; Gagné, 1965). On this basis several counselor trainers have developed programs to teach effective communication skills (Ivey & Gluckstern, 1974; Carkhuff, 1969; Danish & Hauer, 1973). One of these approaches, that of Ivey, will be considered in more detail.

Microtraining procedures, as conceived by Ivey (1971), focus on specific skills and behaviors which can be defined, seen in operation, practiced and evaluated. Rather than confusing the trainee with an overwhelming amount of data, the component-skill approach breaks communication skills into workable and observable dimensions. Each skill is systematically taught as a separate unit. The breaking down of complex behaviors into a number of discrete, identifiable behaviors allows the





trainees to become aware of what makes up effective communication and their own areas of skill and weakness.

Ivey has developed a microcounseling model for teaching these skills. This model consists of the following progressive steps (1) a five-minute videotaped interview between the trainee and a client, (2) the trainee reads a manual describing the specific skill to be learned in the session, (3) the trainee watches video models of an expert demonstrating the specific skill, (4) the trainee is shown his initial interview and discusses with his supervisor where he engaged in or failed to apply the specific skill in question, (5) the supervisor and trainee review the skill together and plan for the next counseling session, (6) the trainee reinterviews the same client for five minutes, (7) feedback and evaluation on the final session are made available to the trainee.

This model of skill presentation involves cue discrimination and specific suggestions for improvement, video models (Bandura & Walters, 1963), written materials and supervisor's comments. Operant techniques (Skinner, 1953) are stressed, in that appropriate interviewer behavior is rewarded and relatively little attention is paid to interviewer errors.

Several studies have shown that this method does teach the component skills of effective communication (Haase & Di Mattia, 1970; Ivey, Normington, Miller, Morrill & Haase, 1968; Kelly, 1971; Higgins, Ivey & Uhlemann, 1970). They also show that trainees readily learn these skills when presented as well defined units. This method of skill training involves both expensive equipment and supervisory personnel.



Using microtraining and other methods specific communication skills have been taught. The skill of reflection of feelings has been focused on in several studies.

Perkins and Atkinson (1972) taught university resident assistants how to make reflection of feeling responses as part of a program in human relations skills which also included attending behavior and summarization of feelings. They found that this skill could be taught by a lecture-discussion method where the subjects listened to an audio taped lecture and then discussed the qualities of a reflection of feeling response before seeing a client and by a lecture-model method where the subjects listened to an audiotape lecture and then saw the skill being used by a counselor on a videotape before seeing a client. While the skill was successfully taught in a 27-minute program, Perkins & Atkinson felt that one exposure to the program would not ensure continued use of the skill and recommended periodic supervised practice of the target behavior.

Haase and Di Mattia (1970) used the micro-counseling paradigm in three 4-hour segments to train support personnel in the skills of attending behavior, expression of feelings and reflection of feelings. Sixteen female subjects, with only one subject having more than a high school education took part in the study. Inspection of pre-test post-test differences showed that there was a significant increase in ability to engage in the communication skills taught in this study. Both this research and a study done by Ivey, Normington, Miller, Morrell and Haase (1968) emphasize the importance of describing each skill in behavioral terms that are meaningful to the beginning counselor, teacher or lay person.



Another communication skill which has been taught as a specific skill is the ability to ask open-ended questions. Canada and Lynch (1975) developed a program based on the developmental steps of (1) learning what an open-ended question was through definition and examples, (2) classifying questions as open or closed, (3) practicing using open-ended questions with a partner, and (4) making a trial run interview where skill acquisition was evaluated. They found that this program successfully taught subjects how to ask open-ended questions.

Higgins, Ivey and Uhlemann (1970) taught couples to share and respond to feelings that they experienced while together in a study of 30 pairs of university students who were married, roommates, engaged or friends. They divided the pairs into three groups and taught the skill in three ways: (1) full micro-training model, (2) programmed text and video models only, and (3) reading material only. The full treatment group showed the most improvement in amount of direct, mutual communication followed by the programmed group.

The above studies show that communication skills can be successfully taught as specific, identifiable tasks. Factor analytic studies of counselor communications (Hackney & Zimmer, 1970; Zimmer & Anderson, 1968; Zimmer & Park, 1967) have identified other specific skills which occur with great frequency in counseling interviews. These skills included (1) minimal verbal stimulus, such as "Mm-hmn", (2) behavior description, (3) restatement or paraphrase, (4) unstructured invitation to talk, (5) reflection of feelings, and (6) summarization of content and feelings. It is suggested by Hackney and Zimmer (1970) that these response classes can be operationalized and taught as specific skills so that they become integrated into the counselor's verbal repertoire.





### Self-Instructional Media Studies

Several instructional methods, including lecture, discussion group, programmed text books, language laboratory, self-instructional audio and video tapes and role-playing groups, have been used to teach specific communication skills. In this section of the review of literature studies which have compared the effectiveness of various methods of teaching skills are looked at.

Perkins and Atkinson (1972) compared the effectiveness of (a) a lecture-model treatment which combined listening to a 17-minute tape-recorded lecture and viewing a 10-minute videotape demonstration of the skill, (b) a lecture-discussion treatment which combined the 17-minute tape-recorded lecture and a 10-minute group discussion, (c) a lecture role playing treatment which combined the 17-minute tape-recorded lecture with two 5-minute sessions of role playing the skill, and (d) a control group which received no treatment in teaching the skills of attending behavior, reflection of feelings, and summation of feelings. The subjects were 40 resident assistants (20 females and 20 males). Subjects in all three experimental groups maintained eye contact for a significantly longer period of time than did control subjects. Reflection of feeling responses were recorded a significantly greater portion of time for the lecture-discussion and lecture-modeling treatments than for the control group.

The lecture method was compared with an experiential-videotape training program by Heiserman (1971). She taught juvenile court caseworkers to discriminate client feelings and thoughts and to communicate that understanding to the client in two ways (1) a straight lecture method combined with audiotape and videotape models of caseworkers using





the skill, (2) an experiential videotape method where the caseworker was videotaped using these skills with a client. The caseworker had an immediate replay and discussion of their use of the skills. Heiserman found no difference in the effectiveness of these two methods of teaching.

Hum (1973) compared the effectiveness of four methods of teaching the skill of reflection of feelings. He used the language laboratory for an audio-videotape group and an audiotape group. As well, he had an audio tape-recorder group, a lecture-discussion group and a control group. All treatment groups taught the skill of reflection of feeling. The language laboratory audio group did not display higher scores on measures of empathy than the other treatment groups as hypothesized.

Several studies (Magnus, 1972; Di Mattia & Zimmer, 1972; Higgs, Ivey & Zimmer, 1972; and Saltmarsh, 1973) have looked at the use of programmed textbooks alone and combined with other teaching methods to teach communication skills.

Magnus (1972) developed a programmed text to improve the ability of school administrators and counselor trainees to understand and communicate empathically. The text was divided in two parts. Part I used a linear program format to focus the learner's attention on the cognitive aspects of empathic understanding and communication. Part II used a branching program format structured around five stimulus expressions to give the learner an opportunity to utilize what he had learned in interaction with the stimuli of the programmed text. Magnus found that this programmed text effectively taught the subjects to discriminate empathic responses from non-empathic statements for both groups of subjects. The counselor trainees were also able to write empathic responses at a level significantly higher than the control group. While this programmed text had the advantage of being



auto-instructional, no attempt was made in the study to determine if the subjects could use the skill in a real life situation. Only one of the two treatment groups significantly increased their ability to write an empathic response.

A study by Di Mattia and Zimmer (1972) found that a programmed text was more effective than a video modelling tape with no commentary or student involvement in teaching discrimination of depressive clues in people. They felt that a critical difference in the two manners of teaching was the fact that the programmed text forced student involvement while the video presentation left the student passive.

Student involvement in the program appears to be a critical component in teaching any skill. Higgins, Ivey and Uhlemann (1970) compared the effectiveness of (1) a media group involving didactic instructions, modelling tapes, subject practice with clients and feedback discussion with, (2) a programmed text plus videotape models of the skill to see which method more effectively taught sharing and responding to feelings between couples. While both methods significantly increased both treatment groups ability to use the target skill, the full media treatment subjects showed the most improvement.

Saltmarsh (1973) combined a self-instructional programmed manual with a tape which directed interaction between group members. He designed this approach to teaching the components of the skill of empathic understanding to master degree students. While he found that subjects who had been in the program scored significantly higher on the Michigan State Affective Sensitivity Scale than the control group no attempt was made to see if the treatment subjects could display, through written response or verbal interaction, an empathic response.



A study which compared programmed-machine training, leader-led group training, and video-lecture training was done by Emener (1971). He taught the skills involved in empathic responses to 56 university students. Both written and verbal measures of the student's ability to make an empathic response were made. Emener found that both the leader-led group training group and the programmed machine training group significantly improved on both written and verbal measures. The video-lecture training group were able to communicate verbal empathic responses as effectively as the programmed-machine training group but not as effectively as the leader-led group.

Several studies have been done to test out self-instructional programs (Eisenberg & Delaney, 1969; Dickerson & Roberts, 1974; Hum, 1973; and Esenrath, Cocker, & Martinson, 1972).

Dickerson and Roberts (1974) developed a program of thirty learning units consisting of tape recordings and supplementary reading material to be used as inservice training for employed rehabilitation counselors. The unit skills were based on information useful for these counselors to know. The subjects consisted of 136 treatment subjects who were given the program and left to progress at their own speed and 69 control subjects who were given no treatment. The lack of significant gains in the treatment group's knowledge of the program skills was attributed largely to lack of motivation on the part of the subjects. They did not work through the program units. Dickerson and Ryan concluded that while the idea of an individualized packaged program was promising the individual units had to be carefully planned so that the student felt involved.

Hum (1973) successfully taught university students to make written reflection of feeling responses using an audiotape program .





combined with a written manual. Elsenrath and Cocker (1972) combined a self-instructional audio-tape with a lecture to teach the interview skill of pausing to allow the interviewee time to think and respond.

The above studies indicate that verbal skills can be successfully taught by a self-instructional program.

A summary of the major findings of the preceding review of literature would include:

1. The concept of modeling is useful in teaching communication skills.
2. While videotape models, audiotape models and live models have been used successfully, there is no clear cut evidence as to which method is more effective in presenting a model of a communication skill.
3. Communication skills can be broken down into discrete, identifiable behaviors and taught as separate units.
4. Many methods, including lecture, discussion group, programmed text books, language laboratory, self-instructional audio and videotapes and role-playing groups, have been used to teach specific communication skills. No clear cut findings point out which method was most effective when time required to learn the skill, the ability to transfer the skill to real life situations, and cost in terms of equipment or teaching staff are considered.
5. Communication skills can be taught by self-instructional programs. One of the keys to the effectiveness of the program appears to be student involvement in the program as they are experiencing the instruction.

A worthwhile topic of study based on the literature examined seemed to involve an examination of the relative effectiveness of an





audio tape model as compared to a videotape. Using the most effective model, self-instructional programs which taught some useful, specific communication skills could be assessed in terms of the effectiveness in teaching skills at both the cognitive level of understanding and at the practical level of using the skill in a live situation.

### Communication Skills to be Modeled

The review of literature revealed several discrete communication skills that had been taught as separate units. These skills included: (a) reflection of feelings (Perkins & Atkinson, 1972; Haase & Di Mattia, 1970; Ivey, Normington, Miller, Morrell & Haase, 1968), (b) open-ended questions (Canada & Lynch, 1975), and (c) sharing and responding to feelings (Higgins, Ivey & Uhleman, 1970). As well, the factor analytic studies of counselor communications (Hackney & Zimmer, 1970; Zimmer & Anderson, 1968; and Zimmer & Park, 1967) revealed other skills which could be operationalized and taught as specific skills. These skills included (1) minimal verbal stimulus, such as, "Mm-hmm", (2) behavior description, (3) restatement or paraphrase, (4) unstructured invitation to talk, (5) reflection of feelings, and (6) summarization of feelings.

Ivey (1971) has put many of these separately defined skills into an order which makes up the component skills of microcounseling. The first three verbal skills in his order of presenting the skills are (1) open invitation to talk or open-ended questions, (2) reflection of feelings, and (3) paraphrasing. As these three skills have been shown to be: (1) used by counselors, (Ivey, 1974; Zimmer & Park, 1967) and (2) separate, operationally defined verbal skills, (Zimmer & Park, 1967) they appeared to be suitable and useful skills to use as the



basis for the beginning units in a program of teaching communication skills.

### Choice of Modeling Media

Studies have shown that some methods of presenting the skill to be modeled have been videotapes, audiotapes, written dialogues and role-playing.

While written program texts have effectively taught the concepts of specific communication skills, these texts do not appear to facilitate the transfer of the cognitive understanding of the skill to use in live conversations (Dalton, Sunblad, & Hylbert, 1972 and Magnus, 1972). The combination of written material or a lecture and a videotape modeling the skill has been found to facilitate both cognitive understanding and transfer of the skill to live communications (Perkins & Atkinson, 1972 and Higgins, Ivey & Uhlemann, 1970). As one of the purposes of this study was to develop a self-instructional program, it seemed suitable to combine introductory didactic explanations of the skill and a model showing the skill being used in several ways all on one tape. A videotape model was chosen on the basis of preliminary research which showed that there was no difference in the effectiveness of a videotape or audiotape model in teaching the skill of paraphrasing. (See Chapter III).

In summarizing the research, there is increasing evidence to indicate that modeling is an effective way for learning new behaviors. It has been shown that a number of educators are experimenting with several instructional methods that incorporate the use of models. These methods include microcounseling procedures, programmed textbooks and self-instructional audio tapes and video tapes. In conjunction



with the use of specific media for teaching skills through the use of models, it has been found that specific communication skills can be taught as separate, identifiable units. However, evidence as to the effectiveness of certain types of model media, such as audio tapes and video tapes, when used in self-instructional communication skill programs requires further investigation.



## CHAPTER III

### METHODOLOGY

This chapter presents a summary of the preliminary research project, the methodology of the thesis research, a description of the self-instructional programs, and a summary of the research questions.

#### Preliminary Research Project

The first step toward conducting the study was the development of a preliminary project. The purposes of this preliminary study were two fold: (1) to determine whether the audiotape self-instructional program and the audio-videotape self-instructional program are effective in teaching a paraphrase response, and (2) to determine whether an audiotape self-instructional program was as effective as an audio-videotape self-instructional program in teaching a paraphrase response.

Subjects. Thirty-four students (13 males and 21 females) enrolled in an undergraduate Educational Psychology course were used in this study.

Instruments. The subject's ability to paraphrase was measured in two ways.

A five-statement questionnaire where the subjects wrote "responses that showed that they were interested in what the student was saying" was used. This questionnaire was rated independently by two trained raters who judged whether or not the responses were paraphrases. Inter-rater reliability on this measure was .93.







A three-minute videotape clip of the subject talking to a coached client was rated for the number of paraphrases used. Interrater reliability was .95.

Procedure. A Posttest-Only Control Group Design was used. The subjects were randomly assigned to one of three groups: (1) audio-video tape program, (2) audio tape program, and (3) control group.

1. Audio-video tape treatment. These subjects watched the audio-video program individually. Upon completion they filled in the paraphrase response questionnaire and then held a 5-minute interview with a coached client.

2. Audio tape treatment. These subjects listened to only the audio portion of the audio-video tape program. Upon completion they filled in the paraphrase response questionnaire and then held a 5-minute interview with a coached client.

3. Control group. These subjects filled in the paraphrase response questionnaire and then held a 5-minute interview with a coached client.

All the subjects were randomly assigned to the coached clients. Neither the person randomly assigning the subjects nor the coached clients knew which group the subject was from.

Nature of the Self-Instructional Program. The program was 30 minutes in length and consisted of (1) a verbal explanation of the skill of paraphrasing, (2) two 3-minute demonstrations of a teacher talking with a student and using paraphrasing, (3) another verbal explanation of the skill, (4) 10 single verbal interactions between a teacher and a child to demonstrate the skill as an isolated concept, (5) 10 practise



statements where a student made a statement, there was a 20-second pause for the subject to make a paraphrase response, and then a teacher made a paraphrase response, and (6) 10 practise statements where a student made a statement and there was a 20-second pause for the subject to make a paraphrase response.

The program was reproduced on three video tapes and three audio tapes to allow six treatment subjects to work independently at one time.

Results. It was hypothesized that both the audio-video tape program (A-V) and the audio tape program (A) would effectively teach the skill of paraphrasing and that there would be no difference in the effectiveness of the two programs.

On the subjects ability to write a paraphrase response, the following results were obtained.

Table I

Means and Standard Deviations on  
Written Paraphrase Questionnaire

Group	Audio	Video	Control
Mean	3.79	3.73	.45
S.D.	.98	.98	1.19



Table II

t-Tests for Differences on Written  
Paraphrase Questionnaire

Groups	df	Obtained t
A-V and C	20	6.4*
A and C	21	6.2*
A-V and A	21	.02

\*p < .01

Using a t-test comparing the means of the A-V group and the control group, the obtained t value was 6.4 and the critical t value was 2.528. This t value was found to be significant beyond the  $\alpha = .01$  level, (df=21).

A t-test comparing the means of the A group and the control group obtained a t value of 6.2 and a critical t value of 2.518. This was found to be significant beyond the  $\alpha = .01$  level, (df=20).

A t-test comparing the means of the A-V group and the A group obtained a t value of .02 and a critical t value of 2.528 (df=21). No significant t difference was found to exist.

On the subjects' ability to use paraphrases in a conversation, the following results were obtained.



Table III

Means and Standard Deviations  
on Verbal Interactions

Group	Audio	Video	Control
Mean	3.37	3.74	.59
S.D.	2.8	3.3	.9

Table IV

t-Tests for Differences on Frequency of Using  
Paraphrases in Verbal Interactions

Groups	df	Obtained t
A-V and C	20	3*
A and C	21	3*
A-V and A	21	.02

\*p < .01





Using a t-test comparing the means of the A-V group and the control group, the obtained t value was 3 and the critical t value was 2.528. This was found to be significant beyond the  $\alpha = .01$  level, (df=21).

A t-test comparing the means of the A group and the control group obtained a t value of 3 and a critical t value of 2.518. This was found to be significant beyond the  $\alpha = .01$  level, (df=20).

A t-test comparing the means of the A-V group and the A group obtained a t value of .02 and a critical t value of 2.528 (df=21). No significance was found.

Discussion. The treatment subjects learned the concept of paraphrasing effectively from both the audio-video tape program and the audio tape program. This learning was apparent in both the written questionnaire and the verbal interaction. Since no difference was found between the two modes of presenting the model, audio tape or combined audio and video tape, it appears that a verbal communication skill such as paraphrasing can be effectively taught using a verbal model.

Audio tape equipment is accessible to many more people and, therefore, a communication skills program developed on audio tapes would be readily useable by many more people than a program developed on video tapes. The self-instructional nature of the program also makes it easily used by individuals on their own time.

The lack of difference between groups in non-verbal attending skills could be due to the fact that the skill being learned was verbal in nature so, therefore, even when a visual model was presented the subjects attention was focused on the auditory stimuli. Also, as no mention of these skills was made, the subjects may have resorted to



typical personal behavior in the brief verbal interaction which was video taped.

While all but two treatment subjects used at least one paraphrase in their oral interview, there was a great difference in number of paraphrases used. It appeared that some subjects were more able to use the newly acquired skill than others. In a future study it would be valuable to find out why some subjects chose to use the skill in the oral interview and some did not. It could have been partly due to the instructions given to the subjects prior to the oral interview. More direct instructions to use paraphrases may be needed to see if they have internalized the skill to the place where they could use it in conversation.

The results of this study indicate that it would be worthwhile to develop self-instructional programs on either audio tapes or audio-video tapes to teach paraphrasing as well as other communication skills.

#### Implications of the Preliminary Research

The results of the preliminary research influenced the nature of the thesis research in the following ways: (a) It was shown that there was no difference in an audiotape model and a videotape model in teaching the communication skill of paraphrasing. As a result, it was decided to develop the three thesis program skill models on videotapes. Videotapes were chosen for two reasons. Firstly, once the programs were made on video tapes it was an easy matter to make the audio tapes by taking the sound tracks from the video tapes. In this way, both audio and audio-video programs would be available depending on the equipment available to the person using the programs. Secondly, the video tape form of the programs appeared to be more exciting to parti-



cipate in, even though they were not shown to be more effective than audio tapes in teaching the skill of paraphrasing. (b) Some subjects used the skill in the verbal discussion with the coached student and some did not. It was decided to make an inquiry with some subjects immediately after the verbal post test and with all subjects immediately after the delayed post test to see if reasons for this difference could be found. (c) The format of the self-instructional program successfully taught the skill of paraphrasing. It was decided to use the same program format when developing the thesis program tapes.

### Methodology of Thesis Research

Sample. The subjects for the study were 63 undergraduate education students (13 males and 50 females) attending Spring Session at the University of Alberta.

Research Design. A posttest-only control group design was used. This design was selected in an attempt to control for the possibility of task learning and reactivity effects through pre-testing (Campbell & Stanley, 1966). Further, this design lends itself to obtaining a measure of how frequently the program skills are actually used after a subject had worked through the program. Subjects were also given a delayed posttest one week after they had gone through the program. This gave a measure of retention of the skill over a short period of time.

Upon completion of the verbal posttest, two subjects from each group were questioned about their use of the program skill in the live interaction situations. This was done to get subjective data on why the subject used or did not use the program skill. Further information was sought as to the impressions the subjects have of the programs.







Upon completion of the verbal delayed posttest all treatment subjects filled in the inquiry form.

Instruments. The subjects' ability to use the program skills was measured in two ways in order to test the recall and transfer dimensions of the programs (Gopper, 1975).

A five-statement questionnaire which was made up of five "student-like" statements was used (see Appendix D). The subjects wrote a response to each "student-like" statement. This questionnaire was filled in during both the posttest and the delayed posttest. The questionnaire was rated independently by two trained raters. Each subject's responses were rated for all three skills. Inter-rater reliability is reported in Chapter IV.

Each subject held a 5-minute live conversation with a coached student. These conversations were audiotaped. Each conversation was rated in the following manner. Forty-five seconds at the beginning of each conversation was dismissed as a warm-up phase. The number of times the program skill was used in the next three minutes were counted. Both trained raters independently counted the number of times each program skill was used during the three minutes. Each subject's responses were rated for all three skills. Inter-rater reliabilities on rater behavior counts are reported in Chapter IV.

A third form of inquiry was also used. This consisted of a questionnaire which was designed to find out why the subject did or did not use the skill and to get some feedback on the programs (see Appendix F). Two subjects from each experimental group were interviewed immediately after the posttest conversation with a coached student. All



other subjects in experimental groups filled in this inquiry form after their delayed posttest conversation with a coached student.

Subjects who were interviewed individually after the posttest conversation with a coached student were not included in the delayed posttest measures.

Data Analysis. This study yielded two types of data. These were: (1) the judges' ratings of subjects' interviews with coached students, and (2) the judges' ratings of written responses. Each type of data was analyzed using a one-tailed t-test. A Welch t-test adjusted for unequal variance was used to take into account any differences in variance found in between group comparisons (Ferguson, 1966).

The difference between groups was considered significant if this difference had a probability of less than five chances in one hundred of being due to chance alone ( $p < .05$ ).

Nature of the Trained Raters and Coached Students. The two raters, a student in counseling and the researcher, were trained to identify the program skills until an inter-rater agreement of .9 was achieved. This training consisted of both rating written responses and rating audiotape statements. The validity of the ratings was checked by including responses rated as either paraphrase, reflection of feeling or open-ended question by an expert rater. The two trained raters consistently rated these responses in accordance with the expert rater.

The three coached undergraduate students underwent an hour training period where they practiced the statements they were to present



to each subject that they saw. The coached students used the same problem with each subject that they saw. They made many short statements and paused frequently to give the subjects an opportunity to respond.

Procedure. Subjects were randomly assigned to one of four groups. There were three treatment groups and one control group. The groups were (1) paraphrase program group, (2) reflection of feelings program group, (3) open-ended question program group, and (4) control group.

Each of the treatment groups listened to the videotape self-instructional program that they had been assigned to. Upon completion of the program they made written responses to the five statement questionnaire of typical student statements. They then held a five-minute interview with a coached student.

The control group filled in the five statement questionnaire and held a five-minute interview with a coached student.

All subjects were randomly assigned to the coached students. Neither the person randomly assigning the subjects nor the coached students knew which group the subject was from.

Two subjects from each treatment group were interviewed immediately after their interview with a coached student (see Appendix F).

One week later subjects were again measured for their ability to use their program skill in both a written form and in an interview with a coached student. Subjects who were given the inquiry after the first verbal measure were not included in the delayed posttest group. (See Figure 1 for Procedure Outline.)





Figure 1

## Research Procedure for Treatment and Control Groups

Group	Procedure
Paraphrase Videotape Program	<ol style="list-style-type: none"> <li>1. Saw the 25 minute self-instructional program on paraphrasing. Filled in the check mark sheet during the practice phase of the program.</li> <li>2. Made written responses to 5 typical student statements.</li> <li>3. Held a 5-minute live interaction with a coached student.</li> <li>4. One week later repeated the written response sheet and the 5-minute live interaction with a coached student. Filled in the inquiry questionnaire.</li> </ol>
Reflection of Feelings Videotape Program	<ol style="list-style-type: none"> <li>1. Did the 25 minute self-instructional program on reflection of feelings. Filled in the check mark sheet during the practice phase of the program.</li> <li>2. Made written responses to 5 typical student statements.</li> <li>3. Held a 5-minute live interaction with a coached student.</li> <li>4. One week later repeated the written response sheet and the 5-minute live interaction with a coached student. Filled in the inquiry questionnaire.</li> </ol>
Open-Ended Question Videotape Program	<ol style="list-style-type: none"> <li>1. Did the 25 minute self-instructional program on asking open-ended questions. Filled in the check mark sheet during the practice phase of the program.</li> <li>2. Made written responses to 5 typical student statements.</li> <li>3. Held a 5-minute live interaction with a coached student.</li> </ol>





Group	Procedure
	4. One week later repeated the written response sheet and the 5-minute live interaction with a coached student. Filled in the inquiry questionnaire.
Control Group	1. Made written responses to 5 typical student statements. 2. Held a 5-minute live interaction with a coached student. 3. One week later repeated the written response sheet and the 5-minute live interaction with a coached student.

Figure 2

## Subject Distribution

Group	Posttest n	Delayed Posttest n
Paraphrase treatment group	16	13
Reflection of feelings treatment group	17	9
Open-ended question treatment group	18	10
Control group	11	11



The drop in the number of subjects taking the delayed posttest measure as compared to the posttest measure was due mainly to subjects being unable to fit the delayed posttest interview into their busy timetables. In all but two cases subjects who did not take part in the delayed posttest measures stated that they would be unable to be present for the second testing. The following table of mean scores on the posttest measure for those people who did not take the delayed posttest measure and for those people who did take the delayed posttest measure shows that there was no significant difference in the two groups. (See Figure 3.) Therefore, it is unlikely that the delayed posttest results were significantly influenced by the dropout of subjects after the posttest measures.

Figure 3

Mean Scores on Posttest Measures For Subjects Who Did  
And Did Not Do The Delayed Posttest Measures

Measure	$\bar{X}$ Score (Delayed Posttest)	$\bar{X}$ Score (No Delayed Posttest)
Paraphrase (written)	4.2	4.0
Paraphrase (verbal)	2.0	2.7
Reflection of feelings (written)	3.4	3.1
Reflection of feelings (verbal)	1.7	1.5
Open-ended questions (written)	3.9	3.9
Open-ended questions (verbal)	2.8	2.5



Nature of the Self-Instructional Programs. The self-instructional programs were presented on video tapes. Video tapes were selected after the preliminary research found no difference in the effectiveness of an audio-video model as compared to an audio only model. Video tapes were chosen for two reasons. Firstly, once the programs were made on video tapes it would be an easy matter to make the audio tapes by taking the sound tracks from the video tapes. In this way, both audio and audio-video programs would be available to the person using the programs. Secondly, the video tape form of the program appeared to be more exciting to participate in. The program when presented on both audio tape and audio-video tape taught the skill of paraphrasing. Therefore, the same program format was used in the three communication skills programs being tested in this study.

The programs were made in the Audio Visual Department at the University of Alberta by professional television personnel. Grade six students from Brander Gardens Elementary School and an elementary teacher provided the verbal interchanges for the programs. Both the students and the teacher were trained in the type of statements and responses to make which would best illustrate the program skill being demonstrated. A professionally trained commentator did the didactic instructions.

While a broad, integrative concept of programming is frequently encouraged (Lindvall & Bolvin, 1967), Lange (1967) points out that there is value in effective educational modules that can be used for specific purposes and conditions. By developing specific skill programs it becomes possible to evaluate each segment of what later may be integrated into a complete series of skill programs. Also, by develop-





ing each skill as a separate unit, the user is able to easily repeat the program or segment of it to meet his own needs and time schedule.

The programs were based on a dual taxonomy for characterizing behaviors to be learned and exhibited which was compiled by Gropper (1975). This taxonomy sets out two conditions of performance (a) recall, and (b) transfer. The component skills are (1) discrimination, (2) generalizations, (3) associations, and (4) chains.

Specifically, the program was set out to be efficient as well as effective. The following necessary program requirements, as set out by Gropper, were incorporated: (a) enough exposure to target behavior before practice so that the target behavior was clearly delineated, (b) exposure to a wide variety and a sufficient number of samples to allow for easy generalization, (c) practice during instruction to facilitate recall, (d) feedback about correctness or incorrectness of responses, and (5) practice of the total criterion behavior.

The individual program video tapes were approximately 25 minutes in length and consisted of (1) a verbal explanation of the skill, (2) a 3-minute demonstration of a teacher talking with a student and using the skill, (3) another verbal explanation of the skill, (4) 8-10 verbal interactions between a teacher and a child to demonstrate the skill as an isolated concept, (5) 8-10 practice statements where a student made a statement, there is a 20-second pause for the subject to make a response, then a teacher made a response using the program skill. The subject compared his response to the teacher's to determine if they used the program skill. (6) A re-statement of the program skill, (7) 10 practice statements where a student made a statement and the subject made a response using the program skill. For parts 5 and 7 of



the program, the subjects gave themselves a check mark each time they felt they had made a successful response. This helped insure subject involvement in the program. This method was shown to be successful in a study by Verplanck (1956) (see Appendix D).

### Research Questions

To evaluate the effectiveness of the three self-instructional communication skill programs and to see if the skill acquisition held up over time, six specific hypotheses were constructed. These hypotheses were tested with both posttest and the delayed post measures.

#### Question I

Paraphrase program group subjects will use significantly more paraphrase responses on the written questionnaire than will control group subjects.

#### Question II

Reflection of feelings program group subjects will use significantly more reflection of feelings responses on the written questionnaire than will control group subjects.

#### Question III

Open-ended question program group subjects will use significantly more open-ended questions on the written questionnaire than will control group subjects.

#### Question IV

Paraphrase program group subjects will use significantly more paraphrase responses in the live interview than will control group subjects.



Question V

Reflection of feelings program group subjects will use significantly more reflection of feelings responses in the live interview than will control group subjects.

Question VI

Open-ended question program group subjects will use significantly more open-ended questions in the live interview than will control group subjects.



## CHAPTER IV

### RESULTS AND DISCUSSION

This chapter deals with the reliability of the judges on both the written and verbal measures, the findings as related to each of the hypotheses, and a summarization of the subjective data gathered by the inquiry questionnaire.

#### Reliability of Raters

Basic to the consideration of the data collected in terms of differential treatment effects was an investigation into the reliability with which written responses and verbal statements emitted by subjects during a discussion could be counted. As indicated by Tables 5 and 6, it was found that the judges could reliably rate both written and verbal responses. This was expected in view of the high interjudge reliabilities found in the preliminary research project described in Chapter III.

#### Treatment Effects on the Posttests

The following null hypotheses were generated to test the treatment effect as displayed on the written posttest.

1. There will be no significant difference between the mean number of paraphrases used by subjects in the experimental and control groups on the written response posttest.

2. There will be no significant difference between the mean number of reflection of feeling responses used by the subjects in the





Table V

Correlation Coefficients of Rater  
Scores on Posttests

Measure	Skill	Correlation*
Written Response Sheet	Paraphrase	.97
Written Response Sheet	Open-Ended Question	.99
Written Response Sheet	Reflection of Feelings	.97
Verbal Interaction Behavior Count	Paraphrase	.91
Verbal Interaction Behavior Count	Open-Ended Question	.95
Verbal Interaction Behavior Count	Reflection of Feelings	.98

\*Pearson r



Table VI  
Correlation Coefficients of Rater Scores  
on Delayed Posttests

Measure	Skill	Correlation*
Written Response Sheet	Paraphrase	.95
Written Response Sheet	Open-Ended Question	.97
Written Response Sheet	Reflection of Feelings	.97
Verbal Interaction Behavior Count	Paraphrase	.97
Verbal Interaction Behavior Count	Open-Ended Question	.98
Verbal Interaction Behavior Count	Reflection of Feelings	.98

\*Pearson r



experimental and control groups on the written response posttest.

3. There will be no significant difference between the mean number of open-ended question responses used by the subjects in the experimental and control groups on the written response posttest.

T-test analyses using the Welch t-test (Ferguson, 1966) adjusted for unequal variance was carried out (see Table 7). On the measure between the open-ended question group and control group a significant difference was found ( $t = 21.8$ ;  $p < .01$ ). No t-scores could be computed in the comparison of the paraphrase group and the control group and in the comparison of the reflection of feeling group and the control group as the control group made no scoreable responses in either case. However, with mean scores of 3.8 for the paraphrase group and 3.4 for the reflection of feeling group, it seems reasonable to assume that the treatments were effective. The maximum possible mean score on the written response measure was 5.0. Therefore, for all three hypotheses the null hypothesis was rejected.

The following null hypotheses were generated to test the treatment effect displayed on the verbal behavior count posttest.

1. There will be no significant difference between the mean number of paraphrases used by subjects in the experimental and control groups on the verbal behavior count posttest.

2. There will be no significant difference between the mean number of reflection of feeling responses used by the subjects in the experimental and control groups on the verbal behavior count posttest.

3. There will be no significant difference between the mean number of open-ended questions used by subjects in the experimental and control groups on the verbal behavior count posttest.





Table VII

Means, Standard Deviations and  
t-Tests on Posttest Measures

Skill	Experimental			Control			df <sup>1</sup>	t
	Written			Written				
	<u>n</u>	<u><math>\bar{X}^2</math></u>	<u>S.D.</u>	<u>n</u>	<u><math>\bar{X}^2</math></u>	<u>S.D.</u>		
Paraphrase	16	3.8	1.4	11	0.0	-	-	-
Reflection of Feelings	17	3.4	1.6	11	0.0	-	-	-
Open-Ended Question	18	4.2	1.5	11	.09	0.5	21.8	9.8*
							.	.
	Verbal			Verbal				
	<u>n</u>	<u><math>\bar{X}^2</math></u>	<u>S.D.</u>	<u>n</u>	<u><math>\bar{X}^2</math></u>	<u>S.D.</u>		
Paraphrase	16	2.1	1.7	11	0.4	0.7	23.1	3.5*
Reflection of Feelings	17	1.6	2.1	11	0.9	0.3	17.0	2.8**
Open-Ended Question	18	2.7	1.8	11	0.9	0.2	16.7	5.9*

<sup>1</sup>Degrees of freedom adjusted by Welch test for  $\neq$  variance.

<sup>2</sup>Maximum possible mean was 5.0.

\*  $p < .01$

\*\*  $p = .01$



T-test analysis using the Welch t-test adjusted for unequal variance was carried out (see Table 7). On the measure between the experimental paraphrase group and the control group a t score of 3.5 ( $p < .01$ ) was calculated. On the measure between the experimental reflection of feeling group and the control group a t score of 2.8 ( $p = .01$ ) was calculated. On the measure between the experimental open-ended question group and the control group a t score of 5.9 ( $p < .01$ ) was calculated. This indicates that all three treatment programs were successful in teaching the skill and that the skill could be transferred into a live conversation.

The large standard deviations when compared to the means calculated for the paraphrase group ( $\bar{X} = 2.1$ ; S.D. = 1.7) and the reflection of feeling group ( $\bar{X} = 1.6$ ; S.D. = 2.1) indicates that in the treatment groups a few subjects were making a relatively large number of countable skill responses while many subjects were making a relatively small number or no countable skill responses. This finding shows that while a few subjects transferred the program skill very effectively to the live conversation setting, many did not. Possible reasons for this finding will be discussed further under the section on subjective reports.

Summary of the Results of the Posttest. The self-instructional videotape programs appeared to be effective in teaching the skills to allow the subjects to use them successfully both in making written responses and when engaging in a live conversation. Thus, one of the major goals of this study, to develop an effective, self-instructional programs to teach the communication skills of paraphrase, reflection of feelings and asking open-ended questions was satisfied.



The number of scoreable verbal responses made during the three minute behavior count was found to be significantly higher for the treatment groups than for the control groups. While the actual number of mean responses made was relatively small (paraphrase,  $\bar{X} = 2.1$ , reflection of feelings  $\bar{X} = 1.6$ , open-ended questions,  $\bar{X} = 2.7$ ) it appeared that the subjects did master the skills to the extent that they could use them in a live conversation. Whether the number of skill responses would increase or decrease in a less structured, more relaxed atmosphere is not answered by this study.

#### Treatment Effects on the Delayed Posttest

The following null hypotheses were generated to test the treatment effects as displayed on the written delayed posttest.

1. There will be no significant difference between the mean number of paraphrases used by the subjects in the experimental and control groups on the written response delayed posttest.

2. There will be no significant difference between the mean number of reflection of feelings responses used by the subjects in the experimental and control groups on the written response delayed posttest.

3. There will be no significant difference between the mean number of open-ended questions used by the subjects in the experimental and control groups on the written response delayed posttest.

T-test analyses using the Welch t-test adjusted for unequal variance was carried out (see Table 8). On the measure between the paraphrase group and control group a significant difference was found ( $t = 6.1$ ;  $p < .01$ ). A significant difference was also found on the measure between the open-ended question group and the control group



Table VIII

Means, Standard Deviations and t-Tests  
on Delayed Posttest Measures

Skill	Experimental			Control			df <sup>1</sup>	t
	Written			Written				
	n	$\bar{X}^2$	S.D.	n	$\bar{X}^2$	S.D.		
Paraphrase	13	2.8	1.3	11	0.3	0.6	18.8	6.1*
Reflection of Feelings	9	3.6	1.3	11	0.0	-	-	-
Open-Ended Question	10	4.2	1.6	11	.09	.3	9.7	7.9*
	Verbal			Verbal				
	n	$\bar{X}^2$	S.D.	n	$\bar{X}^2$	S.D.		
Paraphrase	13	2.5	2.2	11	0.1	.4	13.0	3.6*
Reflection of Feelings	9	1.7	2.2	11	0.0	-	-	-
Open-Ended Question	10	2.9	2.4	11	0.5	0.8	11.2	3.0**

<sup>1</sup>Degrees of freedom adjusted by Welch test for  $\neq$  variance.

<sup>2</sup>Maximum possible mean was 5.0.

\*  $p < .01$

\*\*  $p = .01$





( $t = 7.9$ ;  $p < .01$ ). No  $t$ -score could be computed in the comparison of the reflection of feelings group and control group as the control group made no scoreable responses. However, with the mean score of 3.6 for the reflection of feelings group, it seems reasonable to assume that the treatment was effective. The maximum possible mean score on the written response measure was 5.0.

The following null hypotheses were generated to test the treatment effect displayed on the verbal behavior count delayed posttest.

1. There will be no significant difference between the mean number of paraphrases used by subjects in the experimental and control groups on the verbal behavior count delayed posttest.

2. There will be no significant difference between the mean number of reflection of feelings responses used by the subjects in the experimental and control groups on the verbal behavior count delayed posttest.

3. There will be no significant difference between the mean number of open-ended questions used by subjects in the experimental and control groups on the verbal behavior count delayed posttest.

T-test analysis using the Welch  $t$ -test adjusted for unequal variance was carried out (see Table 8). On the measure between the experimental paraphrase group and the control group a  $t$  score of 3.6 ( $p < .01$ ) was calculated. The  $t$  score calculated between the open-ended question measure and the control group was found to be 7.9 ( $p < .01$ ). No  $t$  score could be computed in the comparison of the reflection of feelings group and the control group as the control group made no scoreable responses. However, with the mean score of 1.7 for the reflection of feelings group, it seems reasonable to assume that the



treatment was effective. This indicates that the treatment programs were successful in teaching the skill of paraphrasing and asking an open-ended question and that these skills could be transferred to a live conversation.

The large standard deviations when compared to the means calculated (paraphrase  $\bar{X} = 2.5$ , S.D. = 2.2; reflection of feelings  $\bar{X} = 1.7$ , S.D. = 2.2; open-ended questions  $\bar{X} = 2.9$ , S.D. = 2.4) indicates that in the treatment groups a few subjects were making a relatively large number of countable skill responses while many subjects were making a relatively small number or no countable skill responses. This finding shows that while a few subjects transferred the program skill very effectively to the live conversation setting, many did not. Possible reasons for this finding will be discussed further under the section on subjective reports.

Summary of Results of the Delayed Posttest. The self-instructional videotape programs appeared to be effective in teaching the skills so that the subjects could use them correctly, both on the written response sheet and in a verbal conversation, one week after seeing the skill program. Thus, it appears that the effects of the program held up over time.

There was no significant difference in the mean scores of the groups on the posttest measures and on the delayed posttest measures.

The number of scoreable verbal responses made during the three minute behavior count was found to be significantly higher for the treatment groups than for the control groups. While the actual number of mean responses made was relatively small (paraphrase,  $\bar{X} = 2.5$ ; reflection of feelings,  $\bar{X} = 1.7$ ; open-ended question,  $\bar{X} = 2.9$ ) it



appeared that the subjects did master the skills to the extent that they could use them in a live conversation one week after having been exposed to them. Whether the number of skill responses would increase or decrease in a less structured, more relaxed atmosphere is not answered by this study.

#### Posttest-Delayed Posttest Comparisons

The means for each of the three experimental groups and the control group changed very little from the posttest to the delayed posttest measures (see Table 7 and Table 8). Due to the very slight change in the means no statistical analysis was carried out. It appeared that the subjects who saw a self-instructional videotape skill program were able to use the skill as well after a week intermission as they were directly after viewing the program.

#### Summary of Ratings on All Three Program Skills

The responses of each group, both on the written measure and in the behavior count of skill useage, were scored on all subjects' responses for all three skills (paraphrase, reflection of feelings, and open-ended questions). A summary of these results are set out in Table 9 and Table 10.

Several observations are possible. Subjects who were in the open-ended question group tended not to use skills other than open-ended questions while filling in the written response forms. The only skill other than open-ended questions that they used in the live conversations were paraphrases. They used more paraphrases on both the posttest and the delayed posttest than did the control group.

Subjects who were in the paraphrase group used mainly paraphrase responses both on the written response forms and in the verbal conver-





Table IX

Number of Skill Responses of Each Group  
Rated on All Three Skills (Posttest)

Group	n	Measure	Paraphrase		Reflection of Feelings		Open-Ended Question	
			n	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$
Paraphrase	16	Written Response Sheet	61.5	3.8	0	0	0	0
Reflection of Feelings	17		12.5	.7	59.0	3.4	1.5	.09
Open-Ended Questions	18		0	0	0	0	75.5	4.2
Control	11		0	0	0	0	1.0	.09
Paraphrase	16	Verbal Behavior Counts	34.5	2.1	4.0	.25	1.5	.09
Reflection of Feelings	11		26.5	2.5	28.0	2.6	3.5	.3
Open-Ended Questions	18		13.0	.7	0.5	.03	47.0	2.7
Control	11		4.5	.4	1.0	.1	1.0	.1



Table X

Number of Skill Responses of Each Group Rated  
On All Three Skills (Delayed Posttest)

Group	n	Measure	Paraphrase		Reflection of Feelings		Open-Ended Question	
			n	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$
Paraphrase	13	Written Response Sheet	35.5	2.8	6.5	.5	0	0
Reflection of Feelings	9		3.0	.33	33.5	3.6	5.5	.6
Open-Ended Questions	10		0	0	0	0	42.0	4.2
Control	11			.3	0	0	1.0	.09
Paraphrase	13	Verbal Behavior Counts	33.0	2.5	4.5	.34	.5	.04
Reflection of Feelings	9		17.0	1.9	16.0	1.7	2.0	.22
Open-Ended Questions	10		7.0	.7	0	0	29.5	2.9
Control	11		2.0	.18	0	0	5.5	.5



sations. Some subjects, however, did use reflection of feeling responses.

The major finding shown by scoring each group on all three skills was seen in the reflection of feelings group. This group used almost as many or more paraphrase responses as reflection of feelings responses in the verbal conversation. Also, on the written response form this group used a noteworthy number of paraphrases. The reflection of feeling group also used some open-ended questions. This use of multiple skills has at least two possible explanations. Firstly, the nature of the scoring criteria used was such that many responses which did not have a direct reference to feelings and, therefore, could not be scored as a reflection of feeling response, had enough content in them to be scored as a paraphrase. Secondly, some of the modeled responses on the reflection of feeling videotape were very close to being paraphrases. Thus, if these responses were used as the model by the subject, it is likely that a paraphrase response would result. Other unexplained factors could also be responsible for the wider use of other skills by the reflection of feelings group than by the other two experimental groups.

### The Inquiry Questionnaire

In the preliminary research it was found that many more subjects used the program skill on the written response form than in the live conversation. It was not possible to determine if factors other than the lack of transfer of the skill from the understanding stage to useable stage were involved. Also, it seemed desirable to obtain feedback from the subjects on the program that they saw. With these two objectives in mind a number of inquiry questions were set out (see



Appendix F). These questions were asked individually to two subjects from each of the treatment groups immediately after the posttest interview. All delayed posttest subjects filled in the questionnaire upon completion of the delayed posttest conversation with a coached student. No differences were found between the type of responses made in the individual interviews and those written by the subjects themselves. Therefore, all of the information gathered will be considered together.

A total of forty-one inquiry forms were filled in. Thirty-one subjects said that they used the program skill in their conversation with the coached student, while seven said they did not and three were uncertain whether they had or not.

Typical student comments to the question "How did you feel about using it?" were as follows: "uncomfortable", "awkward", "artificial", "self-conscious", "relaxed". This suggests that one of the reasons subjects were not using the skills as well in the live conversations as they did in making written responses was due in part to the strain they felt when being placed in the position of having to engage in a forced conversation. Perhaps in a more relaxed situation they would have felt freer to use the program skill.

Another question asked was, "How did you feel about the program you saw?". Representative subject statements for each communication skill program follow.

#### Paraphrase

"It was clear and informative."

"Well produced as a learning tool."

"I felt that it was useful. Paraphrasing takes time to develop."





### Reflection of Feelings

"The program did raise my communication awareness."

"At first it seemed very rehearsed, quite unreal and overdone. However, I now see how one can make this skill effective when used in one's own fashion."

"It's a good idea."

### Open-Ended Questions

"It was a bit long and simplistic."

"I felt I learned something as a classroom teacher."

"Good - too long - point was put across well."

From the above comments it appears that the programs themselves were well received and perceived by many of the subjects as being useful.

Information was gained through the subjects' responses to the last question ("Any other comments") which would be useful to consider in either revising the present self-instructional video-tapes or when developing further skill tapes using the same basic program model. Some of these comments will now be listed.

"I would have appreciated clearer directions at the beginning as to how to use the check mark sheet."

"See it as useful for people having trouble communicating, particularly beginning teachers."

It appeared that a major reason for subjects not using the skill more in the conversation with the coached student was due to the "artificial" and "forced" nature of the conversation.



## CHAPTER V

### SUMMARY AND CONCLUSIONS

It is the purpose of this final chapter to present a brief overview of the study conducted as well as to postulate implications of the results and to propose areas of future related research.

#### Overview and Summary of Results

The original purposes of the study involved the following activities: (a) to determine if an audiotape or videotape self-instructional program using skill description and modeling procedures could teach the skill of paraphrasing, (b) to see if there was a difference in the effectiveness with which the audiotape program and videotape program taught the skill of paraphrasing, (c) to develop three other self-instructional videotape programs to teach the communication skills of paraphrasing, reflection of feelings, and asking open-ended questions, (d) to determine if the three videotape programs taught their respective skills at both the recall and transfer level of usage, and (e) to determine if the acquired skill was maintained over a period of time.

Considering the first concern just outlined, it was found in the preliminary research that both the self-instructional audiotape program and the self-instructional videotape program successfully taught the skill of paraphrasing. Secondly, no significant difference was found between the audiotape group and the videotape group on either the written response measure or the live conversation measure. As a con-



sequence of this preliminary research, the thesis research developed three self-instructional communication skills programs using videotape as the presenting media and using the same basic program format as was used in the initial research.

Two measures were used to determine if the three self-instructional videotape programs taught their respective skills at the recall level and at the transfer level of usage. It was found that the skills of paraphrase, reflection of feelings and open-ended questions were used significantly more often by the experimental group who worked through the skill program than by the control group. This was true for all three skill groups in the live conversation where the number of times the skill was used was counted. A significant difference was also found between the open-ended question group and the control group on the number of written responses made on a five-item list of student-like statements. No statistical analyses could be made between the written response measurement of the paraphrase group and the control group and between the written response measurement of the reflection of feelings group and the control group as the control group made no scoreable response in either case. However, with mean scores of 3.8 for the paraphrase group and 3.4 for the reflection of feeling group it seems likely that subjects who viewed the programs learned how to write a response illustrating the skill. The maximum mean score on the written measure was 5.0.

The above results indicate that the skill programs did teach the skills to the extent that subjects viewing the program tapes could use the skill in a written response and could transfer the skill to the structured situation of a conversation with a coached student.





The final purpose of the study was to determine if these skills would be maintained over time. A week after the immediate posttest a delayed posttest was carried out. This consisted of both a written measure and a verbal measure of the skill being used in a conversation. The experimental paraphrase group and open-ended question group used their respective skills significantly more often than the control group on the written response form. No statistical analysis could be done to compare the reflection of feeling group and the control group as the control group made no scoreable responses. However, as the reflection of feeling group had a mean score of 3.6 on a five-item questionnaire, it appears likely that they, too, had retained the ability to use the skill in a written response.

On the measure to see if the experimental subjects had retained the ability to use their respective skills in a conversation with a coached student, it was found that both the paraphrase group and open-ended question group used their skills significantly more often than the control group. Again, the reflection of feeling group could not be looked at statistically as the control group made no scoreable responses.

The above findings suggest that the skills were maintained over time. No statistical comparisons were made between the posttest scores and the delayed posttest scores as the mean scores for each set of measures differed very little. This suggests that the skill usage retained one week after the programs were completed was at the same level as it was immediately after the programs were completed.

In both the preliminary study and the thesis research, some experimental subjects used the skill they had been exposed to frequently



during their conversation with the coached student while other experimental subjects used their skill infrequently or not at all. A subjective inquiry after the conversation with the coached student revealed that many experimental students felt uncomfortable and tense while in the conversation setting. It is possible that the strain experienced during this taped conversation inhibited some of the experimental subjects and, thus, made them reluctant to try out the new skill they had just learned.

Subjective comments on the programs themselves were found to be generally favorable, with many subjects finding the skill they learned to be useful.

#### Implications of the Study

A model developed by Ivey (1971) showed that specific communication skills could be effectively taught by a method termed Micro-counseling. This method required approximately four hours of student and instructor time for each skill taught plus expensive videotape camera and playback equipment. Students who learned specific communication skills were found to be able to transfer them to an interview with a coached student (Higgins, Ivey & Uhlemann, 1970). This thesis research has shown that three component skills of communication (paraphrasing, reflection of feelings and open-ended questions) can be taught in a period of 25 minutes by a self-instructional videotape program. Students viewing these programs can also transfer the skill to an interview with a coached student. This indicates that it is possible to acquire the above skills in situations where a person does not have access to a communication skills workshop. This factor seems important considering the large numbers of teachers who live and work



in areas or situations that do not permit them the time to fit into an organized workshop. With a self-instructional program, the teacher can fit use of the program to their own time schedule.

As this study was done using videotapes as the media for program presentation the finding in the preliminary research that there was no difference in the effectiveness of a videotape presentation or an audiotape presentation in teaching the skill of paraphrasing. Since the three thesis programs were developed using the same basic format as the one used in the preliminary research, it seems likely that the thesis programs could have been as effectively taught using audiotapes as using videotapes. If this proved to be true, then the only equipment needed to use the programs would be an audio tape recorder. This would greatly increase the useability of the self-instructional communications skill programs.

#### Suggestions for Further Research

The thesis research looked at the transfer of the program skills to a conversation with a coached student. It did not look at whether or not the skill would transfer into the subject's everyday conversations. Future research on the transfer of the program skills, specifically the transfer of the skills into teacher-student interactions seems to be indicated.

The program skills were taught as separate units with no attempt made to see if the program skills when taught as separate units would integrate with each other and become useable parts of an overall method of communication. Future research could let subjects see all three program tapes and then evaluate the subject's overall effectiveness in communication. Further to integration, these specific programs may have





a more useful effect if they became part of an overall program which included other means of instruction including an introductory lecture and role-play practice.

The retention of the skills was checked out after only one week's intermission from the time the subjects saw the programs. It may be desirable in future research to check skill retention after a longer intermission and to include a follow-up to the main program that would reinforce the knowledge and useage of the skill.

As these self-instructional videotapes were successful in teaching specific communication skills it may be useful to develop further skills using the same model. Also, testing out the programs' effectiveness when presented on audiotape would give support to the findings of the preliminary research.

Another factor influencing how successful a program is in teaching a specific skill involves the attitudinal set of the person viewing the program. It is likely that the results of this thesis research would have been even more successful if the subjects involved in the study were there because of a desire to learn the skill rather than because they were interested in being involved in a research project. Future research could compare the difference in skill attainment by people who sought to learn the skills and by people who were learning the skill as a secondary motivation.





## REFERENCES

- Allen, D., & Ryan, K. Microteaching. Massachusetts: Addison-Wesley, 1969.
- Amindon, E., & Flanders, N. The role of the teacher in the classroom. Minneapolis, Minnesota: Paul S. Amindon & Associates, 1963.
- Bandura, A. Behavioral modifications through modeling procedures. In L. S. Krasner & L. R. Ullman (Eds.), Research in behavior modification. New York: Holt, Rinehart & Winston Inc., 1965.
- Bandura, A. Principles of behavior modification. New York: Holt, Rinehart & Winston, 1969.
- Bandura, A., & Walters, R. H. Social learning and personality development. New York: Holt, Rinehart & Winston, 1963.
- Campbell, D. T., & Stanley, J. C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally and Company, 1963.
- Canada, R., & Lynch, M. Systems techniques applied to teaching listening skills. Counsellor Education and Supervision, 1975, 14, 40-47.
- Carkhuff, R. R. Critical variables in effective counselor training. Journal of Counseling Psychology, 1969, 16, 238-245.
- Carkhuff, R. R. Helping and human relations: A primer for lay and professional helpers. Toronto: Holt, Rinehart and Winston, 1969.
- Carkhuff, R. New directions in training for the helping professions: Toward a technology for human and community resource development. Counselling Psychologist, 3, 1972, 12-30.
- Coombs, A., & Soper, D. The helping relationship as described by "good" and "poor" teachers. Journal of Teacher Education, 14, 1963, 64-67.
- Dalton, R., Sunblad, L., & Hylbert, K. An application of principles of social learning to training in communication of empathy. Journal of Counselling Psychology, 1973, 20, 378-383.
- Danish, S., & Hauer, A. Helping skills: A basic training program. New York: Behavioral Publications, 1973.
- Dickerson, L., & Roberts, R. The effectiveness of prepackaged instructions for the inservice training of rehabilitation counselors. Counselor Education and Supervision, 1974, 14, 133-139.
- Di Mattia, D., & Arndt, G. A comparison of micro counseling and reflective listening techniques. Counselor Education and Supervision, 1974, 14, 61-64.



- Di Mattia, D., & Zimmer, J. Comparison of training devices for teaching emotional discrimination. Counselor Education and Supervision, 1972, 12, 17-23.
- Dunkin, M., & Biddle, B. The study of teaching. New York: Holt, Rinehart and Winston, 1974.
- Elsenrath, D., Coker, D., & Martinson, W. Microteaching interviewing skills. Journal of Counseling Psychology, 1972, 19, 150-155.
- Eisenberg, S., & Delaney, D. Using video stimulation of counseling for training counselors. Journal of Counseling Psychology, 1970, 17, 15-19.
- Emener, W. A comparison of programmed-machine training and leader-led group training on interpersonal behavior. Unpublished doctoral dissertation, University of Georgia, 1971.
- Gagné, R. The conditions of learning. New York: Holt, Rinehart and Winston, 1965.
- Goldberg, E. K. Effects of models and instructions on a verbal interviewing behavior: An analysis of two factors of a microcounseling paradigm. Unpublished doctoral dissertation, Temple University, 1970.
- Gropper, G. Diagnosis and revision in the development of instructional materials. Englewood Cliffs: Educational Technology Publications, 1975.
- Haase, R., & Di Mattia, D. The application of microcounseling paradigm to the training of support personnel in counselling. Counsellor Education and Supervision, 1970, 10, 16-22.
- Hackney, H., & Zimmer, J. Relationship of trained counselor behaviors to empathy and positive regard. Unpublished manuscript, Purdue University, 1970.
- Harbach, R. Counselors' perceptions of their counseling and mode of feedback: A comparison of audiotapes and videotapes. Unpublished doctoral dissertation, University of Wisconsin, 1972.
- Heiserman, M. The effect of experiential-videotape training procedures compared to cognitive-classroom teaching methods on the interpersonal communication skills of juvenile court caseworkers. Unpublished doctoral dissertation, Michigan State University, 1971.
- Higgins, W., Ivey, A., & Uhlemann, M. Media therapy: A programmed approach to teaching behavior skills. Journal of Counseling Psychology, 1970, 17, 20-26.
- Hum, A. Language laboratory use in the training of counselors: An exploratory comparative study. Unpublished doctoral dissertation, University of Alberta, 1973.





- Ivey, A. Microcounseling and media therapy: State of the art. Counselor Education and Supervision, 1974, 13, 172-183.
- Ivey, A. Microcounseling: Innovations in interview training. Springfield: Charles C. Thomas, 1971.
- Ivey, A., & Gluckstern, N. Basic attending skills: Participant manual. Massachusetts, Microtraining Associates, 1974.
- Ivey, A. Normington, C., Miller, C., Morrill, W., & Haase, R. Microcounseling and attending behavior: An approach to prepracticum counselor training. Journal of Counseling Psychology, 1968, 15, Monographed Supplement to No. 5, 1-12.
- Kelly, J. Reinforcement in microcounseling. Journal of Counseling Psychology, 1971, 18, 268-272.
- Lange, P. (Ed.) Programmed instruction. Chicago: University of Chicago Press, 1967.
- Lewis, W., Lovell, J., & Jessee, B. Interpersonal relationship and pupil progress. Personnel and Guidance Journal, 1965, 44, 396-401.
- Lindval, C., & Bolvin, J. Evaluation as a tool in curriculum development: The IPI evaluation program. Chicago: Rand McNally, 1970.
- Magnus, R. Development of an individualized autoinstructional program to improve the ability to understand and communicate empathically. Unpublished doctoral dissertation, Mississippi State University, 1972.
- Myrick, R. Effect of a model on verbal behavior in counseling. Journal of Counseling Psychology, 1969, 16, 185-190.
- Perkins, S., & Atkinson, D. Effect of selected techniques for training resident assistants in human relations. Journal of Counselling Psychology, 1973, 20, 84-90.
- Perry, M. Modeling and instructions in training for counselor empathy. Journal of Counselling Psychology, 1975, 22, 173-179.
- Poling, E. Video tape recordings in counselling practicum: II - critique considerations. Counseling Education and Supervision, 1968, 8, 33-38.
- Saltmarsh, R. Development of empathic interview skills through programmed instruction. Journal of Counselling Psychology, 1973, 20, 375-377.
- Shoemaker, J. Micro lab versus didactic training of counselor behaviors. Unpublished doctoral dissertation, University of Missouri, 1972.
- Skinner, B. Science and human behavior. New York: Macmillan, 1953.





Verplanck, W. The control of the content of conversation: Reinforcement of statements of opinion. Journal of Abnormal and Social Psychology, 1955, 51, 668-676.

Whalan, C. Effects of a model and instructions on group verbal behaviors. Journal of Consulting and Clinical Psychology, 1969, 33, 509-521.

Yenowine, G., & Arbuckle, D. Study of the use of videotape and audiotape as techniques in counselor education. Journal of Counseling Psychology, 1971, 18, 1-6.

Zimmer, J., & Anderson, S. Dimensions of positive regard and empathy. Journal of Counseling Psychology, 1968, 15, 417-426.

Zimmer, J., & Park, P. Factor analysis of counselor communications. Journal of Counseling Psychology, 1967, 14, 198-203.



## APPENDICES



## APPENDIX A

## COMMENTARY ON THE PARAPHRASE VIDEO TAPE

## EFFECTIVE COMMUNICATION SKILLS

## SKILL ONE: PARAPHRASING

## 1. Single person facing camera (commentator)

Paraphrasing is a skill to help you understand what someone has said. It lets you check to make sure that you understand another person's ideas, information, or suggestions as he intended them.

Paraphrasing, then, is stating in your own way what a person's remark conveys to you. It is more than merely trying to say the same thing in different words. A paraphrase reflects what a person's statement means to you. Thus, if you have misunderstood the person becomes aware of the discrepancy between his intended meaning and your understanding.

Effective paraphrasing is one way of showing your interest in another person. When you take care to understand what a person is saying it lets that person know that you are interested in him. His ideas, information, or suggestions are worthwhile understanding correctly.

You will now hear a teacher talking with a student and using paraphrasing to show interest in what the student is saying and to clarify what has been said so that the teacher knows if she has understood the student and the student knows if the teacher has understood him.

## 2. 3 minute interaction between a teacher and student SPLIT SCREEN

## 3. single person facing camera (commentator)

You have just heard how paraphrasing can be used in an everyday conversation between a student and a teacher.

Students will now make short statements. A teacher will paraphrase what the student has said. As you listen to the student think of how you would paraphrase what has been said.

Notice how the teacher listens carefully to what the student is saying and checks out with the student whether or not the meaning they understood is what the student has intended to convey.

4. 10 single interactions between a teacher and child SPLIT SCREEN  
5 SECONDS BLUE AFTER EACH SEGMENT



## 5. Single person facing camera (commentator)

You now know what a paraphrase is and how it is used. You will now have a chance to practise paraphrasing.

A student will make a statement. You are to paraphrase what the student has said. That is, put in your own words the meaning you derived from the student's statement. After you have made your statement a teacher will paraphrase what the student said.

Think about your response. If it was a paraphrase give yourself a check mark. See how many check marks you have by the end of this section.

## 6. 12 student/teacher interactions

student makes statement

wait 20 seconds with camera on student

teacher responds

5 SECONDS BLUE BETWEEN EACH SEGMENT

## 7. Single person facing camera (commentator)

How many check marks did you get? Great. You will now have a chance to practise paraphrasing on your own. You will hear a student make a statement. Paraphrase that statement.

If you feel your paraphrase was successful give yourself a check mark. No teacher response will be heard so you will judge your own response.

## 8. 10 single student statements

student holds on screen for 20 seconds after segment

5 SECONDS BLUE BETWEEN EACH SEGMENT

## 9. Single person facing camera (commentator)

How many paraphrases did you make? Great. You now have an effective method to make sure that you understood the meaning another person wished to convey.





## APPENDIX B

## COMMENTARY ON THE REFLECTION OF FEELINGS VIDEOTAPE

## EFFECTIVE COMMUNICATION SKILLS

## SKILL TWO: REFLECTION OF FEELINGS

## 1. Single person facing camera (commentator)

Many statements that people make to us have a feeling component. These feelings can be directly stated or implied. By listening carefully to what a person is saying, we can acknowledge these feelings by reflecting back to the person how we perceive they are feeling. That is we attend to the feelings being expressed rather than attending solely to the content.

This skill of showing another person that you understand their feelings and internal emotions is called reflection of feelings.

Reflection of feelings is a skill which is appropriate to use at any time regardless of whether the feeling expressed is positive, negative or ambivalent. It helps you, the listener, keep in tune with the person who is speaking. Your goal in reflecting feelings is to tune in on emotions.

Reflection of feelings is one way of showing a person that you are interested in him. When you take care to understand how a person is feeling, it lets that person know you are really listening to him.

You will now hear a teacher talking with a student and reflecting feelings. The emphasis is on the emotional portion of the statement rather than on the content.

## 2. 3 minute interaction between a teacher and student SPLIT SCREEN

## 3. Single person facing camera (commentator)

You have just heard how reflection of feelings can be used in an everyday conversation between a student and a teacher.

Students will now make short statements. A teacher will reflect the feeling expressed by the student. As you listen to the student think of how you would respond to the feeling part of what has been said.

Notice how the teacher listens carefully to what the student is saying. She lets the student know that she understands the feelings underlying what they are saying.



4. 10 single interactions between a teacher and child SPLIT SCREEN  
5 SECONDS BLUE AFTER EACH SEGMENT

5. Single person facing camera (commentator)

Now you know what a reflection of feelings is and how it is used. You will now have a chance to practise reflecting the feelings underlying what a student is saying.

A student will make a statement. You are to reflect the feeling element of what the student has said. That is, put into your own words the feelings you associate with the student's statement.

After you have made your response a teacher will reflect the feelings in the student's statement. Think about your response. If it did reflect the student's feelings, give yourself a check mark. See how many check marks you have by the end of this section.

6. 12 student/teacher interactions  
student makes statement  
wait 20 seconds with camera on student  
teacher responds  
5 SECONDS BLUE BETWEEN EACH SEGMENT

7. Single person facing camera (commentator)

How many check marks did you get? Great. You will now have a chance to practise reflecting feelings on your own.

A student will make a statement. Reflect the feelings that you hear. If you feel that your reflection was successful, give yourself a check mark. No teacher response will be heard so you will judge your own responses.

8. 10 single student statements  
student holds on screen for 20 seconds after statement  
5 SECONDS BLUE BETWEEN EACH SEGMENT

9. Single person facing camera (commentator)

How many check marks did you get? Good. You now know how to show a person that you are aware of the feelings underlying what they are saying. This lets the person know that you have truly understood their feelings. Reflecting feelings is a helpful skill to use in all types of conversations.



## APPENDIX C

## COMMENTARY ON THE OPEN-ENDED QUESTION VIDEOTAPE

## EFFECTIVE COMMUNICATION SKILLS

## SKILL THREE: OPEN-ENDED QUESTIONS

## 1. Single person facing camera (commentator)

One effective way to help people express what they are thinking and feeling is to give them an open invitation to talk. That is, through the use of open-ended questions you can encourage a person to keep talking without guiding the direction of the discussion.

An open-ended question, then, is a question which shows the person that you are interested in what they are saying. It does not zero in on one particular part of their statement but rather acts as a general encourager for the person to keep talking.

Could you tell me more about that?

How do you feel about that?

are two examples of open-ended questions.

These questions are designed to help a person clarify his or her own ideas. They are not intended to provide information for the listener. Open-ended questions are useful in a number of different situations.

They help to begin a conversation.

They help to get a person to elaborate on a point.

They help to elicit examples of specific behavior so that you are better able to understand what the person is describing.

They help focus the person's attention on his or her feelings.

You will now hear a teacher talking with a student and using open-ended questions to encourage the student to keep talking.

## 2. 3 minute interaction between a teacher and student SPLIT SCREEN

## 3. Single person facing camera (commentator)

You have just heard how open-ended questions can be used in an everyday conversation between a student and a teacher.

Students will now make short statements. A teacher will encourage the student to continue talking by using an open-ended question.







As you listen to the student, think of how you would phrase an open-ended question in response to the student's statement.

Notice how the teacher listens carefully to what the student is saying. She shows her interest in the conversation by asking an open-ended question.

4. 10 single interactions between a teacher and child SPLIT SCREEN  
5 SECONDS BLUE AFTER EACH SEGMENT
5. Single person facing camera (commentator)

Now you know what an open-ended question is and how it is used. You will now have a chance to practise using open-ended questions.

A student will make a statement. You are to ask an open-ended question in response to this statement. That is, ask a question which will encourage the student to keep talking. This question should not ask for specific details, but rather, should be an open invitation to continue talking in any direction that they choose.

After you have made your response, a teacher will ask an open-ended question in response to the student's statement. Think about your response. If it was an open-ended question give yourself a check mark. See how many check marks you have by the end of this section.

6. 12 student/teacher interactions  
student makes statement  
wait 20 seconds with camera on student  
teacher responds  
5 SECONDS BLUE BETWEEN EACH SEGMENT
7. Single person facing camera (commentator)

How many check marks did you get? Great. You will now have a chance to practise asking open-ended questions on your own.

A student will make a statement. Ask an open-ended question in response to that statement. If you feel that your question was open, give yourself a check mark. No teacher response will be heard so you will judge your own response.

8. 10 single student statements  
student holds on screen for 20 seconds after each statement  
5 SECONDS BLUE BETWEEN EACH SEGMENT
9. Single person facing camera (commentator)

How many check marks did you get? Good. You now know an effective way of encouraging a person to express what they are thinking and feeling.



## APPENDIX D

## CHECK MARK SHEET TO ACCOMPANY EACH VIDEOTAPE PROGRAM

Name \_\_\_\_\_ Number \_\_\_\_\_

Check Mark SheetPART ONE (Comparison with teacher response).

Give yourself a check mark each time you feel that your response shows the program skill.

-----

PART TWO (Self-evaluation of response)

Give yourself a check mark each time you feel that your response shows the program skill.

-----



APPENDIX E

WRITTEN RESPONSE QUESTIONNAIRE

Name \_\_\_\_\_ Number \_\_\_\_\_

Write a response to the following students' statements.

- 1. I'm terribly concerned about my trouble in math. I'm not sure what to do. The teacher confuses me and I feel lost.

---

---

---

- 2. My parents are on me all the time. I saved up the money to buy a car, but they won't even let me get a license.

---

---

---

- 3. I made a new friend this winter. We both like to skate and play basketball. I sure hope he doesn't move away.

---

---

---

- 4. I hate winter. I always have to shovel the snow off the driveway. Boy, do I get cold.

---

---

---

- 5. I think that this is a very poor textbook. I can't understand it.

---

---

---



## APPENDIX F

## FOLLOW-UP INQUIRY SHEET

Name \_\_\_\_\_ Number \_\_\_\_\_

1. Did you see a skill program? \_\_\_\_\_

2. If so, which program? \_\_\_\_\_

3. Did you use this skill during your conversation with the research student?

\_\_\_\_\_

4. How did you feel about using it?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. If you did not use the skill, why not?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. If you had been told to use the skill when talking with the research student would you have used the skill more than you did?

\_\_\_\_\_

7. How did you feel about the program that you saw?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Any other comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





## APPENDIX G

## COACHED STUDENT IMPRESSION SHEET

STUDENT IMPRESSION SHEET

Subject Number \_\_\_\_\_

1. Did you enjoy talking with this person? \_\_\_\_\_
2. Did you feel that you would have liked more  
time to continue the conversation? \_\_\_\_\_
3. Did you feel that the subject was interested  
in what you were saying? \_\_\_\_\_
4. Did their conversation seem artificial or  
unnatural? \_\_\_\_\_





**B30194**